

U.S. Marine Corps



NETWORK PROCEDURES MANUAL



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MANUAL

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1. PURPOSE. To provide guidance and instructions on the development of Network Procedures Manuals as required by references (a) and (b).

2. AUTHORITY. This publication is published under the auspices of reference (c).

3. APPLICABILITY. The guidance contained in this publication is applicable to all contractors and Marine Corps personnel responsible for the preparation of a Network Procedures Manual. This standard is applicable to the Marine Corps Reserve.

4. DISTRIBUTION. This technical publication will be distributed as indicated. Appropriate activities will receive updated individual activity Table of Allowances for Publications. Requests for changes in allowance should be submitted in accordance with reference (d).

5. SCOPE

a. Compliance. Compliance with the provisions of this publication is required unless a specific waiver is authorized.

b. Waivers. Waivers to the provisions of this publication will be authorized only by CMC (CC) on a case by case basis.

6. RECOMMENDATIONS. Recommendations concerning the contents of this technical publication should be forwarded to CMC (CCI) via the appropriate chain of command. All recommended changes will be reviewed upon receipt and implemented if appropriate.

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6. SPONSOR. The sponsor of the technical publication is CMC
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UNITED STATES MARINE CORPS

Information Resources Management (IRM) Standards and Guidelines Program

Network Procedures Manual
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Chapter 1

GENERAL

1.1. OBJECTIVE. The purpose and objective of the Network Procedures Manual is to ensure the reliability of the network and the coordination and control of changes being made to the network. The procedures allow for definition of responsibility for all nodes in the network and for the network to be treated as one entity.

1.2. SCOPE. The scope of the Network Procedures Manual will include all network hardware and software changes along with the performance, reliability, and availability of the network backbone trunks. By following the network procedures, the Master Node allows for coordination and control of events within the Marine Corps Data Network (MCDN).

1.3. APPROACH. The established network procedures will need to be reviewed periodically for changes, deletions, or additions. The network procedures address the network as one entity and must be responsive to support all user requirements and have the capability to update and advance with technological changes. The coordination of changes, reporting, and performance of the network along with the resolution of problems require that all nodes follow the common network procedures to allow the network to function as a single entity.

1.4. DOCUMENTATION DEPENDENCIES. Because the Network Procedures Manual Standard is a convention standard that will be referred to in the preparation of deliverables governed by other standards, there is no specific preceding documentation to this standard.

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Appendix A

NETWORK PROCEDURES MANUAL CONTENT DESCRIPTION

1.1. NETWORK PROCEDURES. This section will state the network procedures that all regional control nodes must follow to allow the network to meet availability and performance objectives.

1.2. HQMC SCHEDULE. HQMC provides guidance to all installations on the time frames (in ZULU time) they are required to be up and processing.

1.2.1. Network Software Responsibility

a. Host System Software Sponsorship. MCCDPA, Quantico, as the sponsor for all host system software in the Marine Corps, is responsible for distributing and updating the host-resident network system software. This software includes ACF/VTAM, NCCF, and the network interface product, NETWORK MONITOR.

b. Network Sponsorship. MCCDPA, Kansas City, as Master Node of MCDN and the sponsor for all front-end system software in the Marine Corps, is responsible for distributing and updating the front-end system software. Additionally, MCCDPA, Kansas City is responsible for developing and promulgating network standards and procedures that ensure the organization, operation, and recoverability of the network.

c. Local Sponsorship. The data communications/teleprocessing sections at the regional control nodes are responsible for the operation of their subnetworks, and their adherence to network standards and procedures.

1.3. FRONT-END PROCESSOR INITIALIZATION (GEN) SUBMISSION STANDARDS.

1.3.1. The Master Node

a. The Master Node at MCCDPA, Kansas City will publish a schedule that will provide the Network Cut Off, Validation, and Load Dates for regular semi-monthly GENs. The scheduled GENs do not include special situations such as new releases of software, and implementation of X.25. An explanation of the schedule follows:

(1) NETWORK CUT OFF DATE. WEDNESDAYS. All network GEN changes will be transmitted to other nodes by 1200, Wednesday, Kansas City time. All nodes will transmit a copy of their "clean" GEN (post-Stage 1) to Kansas City by 1200 the following Monday, Kansas City time.

(2) VALIDATION DATE. MONDAYS. Kansas City will review and validate each node's GEN by 1600, Monday, Kansas City time. This validation procedure applies to changes that have network impact (impact outside a regional control node's subnetwork). Validation is to be assumed unless the node is otherwise notified.

(3) INTERIM CHANGES. Kansas City will be notified of interim subnetwork changes. Explicit approval for implementation is not required.

(4) LOAD DATE. SATURDAYS. Each regional control node will load their subnetwork GENs on this date. In the interest of providing minimal interruption to Marine Corps Reserve weekend activities and Okinawa's prime time on Monday, it is imperative that the loads be initiated and completed within the 30-minute window indicated below:

Eastern Time:	1830-1900, Saturday
Central Time:	1730-1800, Saturday
Mountain Time:	1630-1700, Saturday
Pacific Time:	1530-1600, Saturday
Hawaii Time:	1330-1400, Saturday
Okinawa Time:	0830-0900, Saturday

These times incorporate seasonal time changes and do not require adjustment.

Note: The Master Node has the option to modify these times based upon workload, at MCCDPA KCMO.

1.3.2. GEN Submission. GENs submitted to Kansas City for validation will be sent using MCDN bulk data procedures 'FROM80' and 'T080'. Pre-allocated data sets have been set up at Kansas City. The data set names are MCASC.SEPS.COMTEN.xxxGEN, where xxx equals the three digit node designator (for example, Okinawa=OKR).

1.3.3. GEN Changes. Annotate GEN changes in your Stage 1 input by putting the appropriate load date in the comment section of each added/modified macro/operand. For example, a terminal addition effective for the 3 February 1985 load would appear as follows:

```
XXXXXXXXX      TERMINAL;          .(comments)850203 *
                POLL=40404040,    .(comments)850203 *
                ADDR=60606060     .(comments)850303
```

Ensure that the appropriate load date is in the year/month/day format (for example, 850203).

1.4. ACF/VTAM SOFTWARE

1.4.1. ACF/VTAM List and Table Descriptions

- a. Start option list (ATCSTRxx). The start option list contains ACF/VTAM options and buffer definitions, and is a member on SYS2.VTAMLST.
- b. Configuration list (ATCCONxx). The configuration list, a member on SYS2.VTAMLST, contains the names of members which are to be initially activated.
- c. SNA (SNACONxx) and non-SNA (LOCCONxx) local definition tables. These tables on SYS2.VTAMLST contain ACF/VTAM definitions of SNA and non-SNA channel attached terminals and printers.
- d. Application table (xxyyAPPL). This table contains definitions of applications available to ACF/VTAM and is a member on SYS2.VTAMLST.
- e. Path table (xxyyPATH). This table on SYS2.VTAMLST contains definition statements representing ACF/VTAM routes between subareas.
- f. Cross domain resource manager table (CDRMHOST). This table on SYS2.VTAMLST identifies the hosts in the network participating in cross domain sessions.
- g. Cross domain resource tables (xxyyCDRS, xxyyCDRP). These tables identify applications (xxyyCDRS) and printers (xxyyCDRP) available for cross domain sessions, and are members on SYS2.VTAMLST.
- h. Class-of-service table (ISTSDCOS). This table contains definitions that establish transmission priorities, and is assembled and linked to SYS2.VTAMLIB.
- i. Mode table (ISTINCLM). This table defines log on mode characteristics for SNA and non-SNA devices, and is assembled and linked to SYS2.VTAMLIB.
- j. Unformatted system services tables (xxUSSTAB, xxUSSPRT). These tables define logon parameters and messages for SNA and non-SNA devices, and are assembled and linked to SYS2.VTAMLIB. xxUSSTAB is the USS table for standard SNA and non-SNA devices. xxUSSPRT is the USS table for Telex Corp. printers.

1.4.2. ACF/VTAM List and Table Distribution

- a. ATCSTRxx. Options in this list will be standard throughout the network with the exception of site dependent information.
- b. ATCCONxx. Members resident in this list consist mainly of those distributed from MCCDPA Kansas City, but include those added locally for test purposes.

c. SNACONxx, LOCCONxx. Entries in these tables vary with device types and numbers located at the individual sites.

d. xyyyAPPL. Entries in this table vary with applications fielded at individual sites. All entries will be placed in cross domain resource tables (xyyyCDRS) at other sites to permit global access.

e. xyyyPATH. This table will be distributed from MCCDPA Kansas City.

f. CDRMHOST. This table will be distributed from MCCDPA Kansas City.

g. xyyyCDRS, xyyycDRP. These tables will be distributed from MCCDPA Kansas City.

h. ISTSDCOS. This table will be distributed from MCCDPA Kansas City.

i. ISTINCLM. This table will be distributed from MCCDPA Kansas City.

j. xxUSSTAB, xxUSSPRT. These tables will be distributed from MCCDPA Kansas City.

1.4.3. ACF/VTAM List and Table Modifications

a. ATCSTRxx. Modifications of non-site dependent options in this list should be preceded by contact with MCCDPA Kansas City.

b. ATCCONxx. Additional members will be added to this list as a result of local requirements and new distributions from MCCDPA Kansas City.

c. SNACONxx, LOCCONxx. These tables will be modified in response to local requirements. All printers in these tables will be placed in cross domain resource tables (xyyyCDRP) at other sites to permit global access.

d. xyyyAPPL. This table will be modified in response to local requirements. All applications in these tables will be placed in cross domain resource tables (xyyyCDRS) at other sites to permit global access.

e. xyyyPATH. This table will be modified as required by MCCDPA Kansas City.

f. CDRMHOST. This table will be modified as required by MCCDPA Kansas City.

g. xyyyCDRS, xyyycDRP. These tables may require interim modifications at sites with multiple hosts. In all other cases, these tables will be modified as required by MCCDPA Kansas City.

h. ISTSDCOS. This table will be modified as required by MCCDPA Kansas City.

i. ISTINCLM. This table will be modified as required by MCCDPA Kansas City. New requirements will be tested locally by the development of a separate test table. Upon successful completion of testing, these new requirements will be transmitted to MCCDPA Kansas City and reflected in the distribution of a new table.

j. xxUSSTAB, xxUSSPRT. These tables will be modified in response to local requirements. Local sites will modify USS messages to reflect the local MCDN designator, and maintain the capability that allows the bypass of NETMENU. The text of USS messages will be standard throughout the network, and distributed from MCCDPA Kansas City.

1.4.4. ACF/VTAM List And Table Modification Procedure. All applications and printers in the network will be defined as available cross domain resources in each ACF/VTAM. Site requirements will result in the continuing interim addition of applications and printers to the local ACF/VTAM. The following procedure will be utilized to incorporate these changes into the network and permit the distribution of new cross domain resource tables from MCCDPA Kansas City:

a. Network Cut Off Date. Wednesdays. All CDRSC changes received at MCCDPA Kansas City at 1200, Wednesday, Kansas City time, will be included in the following Monday's new table distribution. This coincides with the network cut off for front-end processor GEN changes. Information required is as follows:

(1) For adding applications - the application name, in accordance with the Telecommunication Network Naming Standard;

(2) For adding printers - the terminal identification (LU) of the printer, in accordance with the Telecommunication Network Naming Standard. Sites will place their changes in ROSCOE account TCST01 at MCCDPA Kansas City, naming the member "xxxVTAM," where "xxx" corresponds to the MCDN designator of the site with changes.

b. Distribution Date. Mondays. MCCDPA Kansas City will distribute new CDRSC tables to each node by 1600 the following Monday, Kansas City time. A new VTAMLST, containing new lists and tables, will be distributed to a PDS at each site called SYS4.VTAMLST. This PDS will serve as a holding library for routine network VTAMLST distributions.

c. Activation Date. Sundays. Each site will activate their new ACF/VTAM on this date immediately following the front-end processor GEN loads. When new applications are incorporated, all sites will ensure that their NETMENU is updated to reflect the new addition(s).

1.4.5. ACF/VTAM Software Updates. All updates and new releases of ACF/VTAM software will be tested at, and distributed from, the system software sponsor (MCCDPA Quantico).

1.5. COORDINATION OF FRONT-END PROCESSOR GEN CHANGES/SOFTWARE UPDATES AND ACF/VTAM TABLE CHANGES/SOFTWARE UPDATES

a. Front-end Processor GEN changes and ACF/VTAM Table changes will routinely occur on the network load/activation dates.

b. Front-end processor and ACF/VTAM software updates will be implemented on alternate dates not coinciding with the load/activation dates. Additionally, front-end processor software updates will be implemented apart from ACF/VTAM software updates when possible.

c. The implementation of all changes and updates will be coordinated by MCCDPA Kansas City.

1.6. NETMENU SOFTWARE

a. Implementation Prior to Interfacing with Security Software. NETMENU will display only regional applications prior to its interface with security software. Applications at remote sites will be available only through the selection of remote site menus.

b. Implementation After Interfacing with Security Software. NETMENU will display applications based on the user's authority after its interface with security software. This will require that all applications throughout the network be defined to each site's NETMENU.

1.7. REPORTING. Each regional control node will be responsible for collecting backbone trunk statistics in accordance with procedures established by the Master Node.

1.8. NETWORK BACK-UP AND BACK-OFF PROCEDURES

1.8.1. Data Set Designations. The following PDSs will be utilized for maintenance, production, back-up, distribution, and recovery:

a. SYS1.VTAMLST, SYS1.VTAMLIB. Contains IBM distribution members;

b. SYS2.VTAMLST, SYS2.VTAMLIB. Contains production members (members started daily);

c. SYS3.VTAMLST, SYS3.VTAMLIB. Contains changes currently in production - instituted when VTAM is started;

d. SYS4.VTAMLST, SYS4.VTAMLIB. Contains latest distribution members from MCCDPA Kansas City and other changes not yet in production - instituted on network activation date;

e. SYSX.VTAMLST, SYSX.VTAMLIB. Contains mini-VTAM system required for recovery from catastrophic failures.

1.8.2. Network Back-Up Requirements. Each site will have a full back-up of ACF/VTAM production software and front-end processor load modules. SYS2.VTAMLST, SYS2.VTAMLIB, SYS3.VTAMLST, and SYS3.VTAMLIB will be stand-alone restorable.

1.8.3. Network Back-Off Requirements. ACF/VTAM software and front-end processor load modules must be able to be restored to the previous executable software level in the event of a network back-off. The network back-off procedure (VTAMBKOF) will be invoked to execute ACF/VTAM at the previous level. At load/activation time, MCCDPA Kansas City will determine whether a back-off is required.

1.8.4. Mini-VTAM. A mini-VTAM will be maintained on the SYSRES pack in SYSX.VTAMLST and SYSX.VTAMLIB PDSs. This mini-VTAM will define a channel attached terminal to be activated in the event of a catastrophic failure. Once this mini-VTAM system is built, no modifications should be made until ACF/VTAM software is updated.

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